

# HighSpeedCamera

SMART Series

Research/Defense/Aerospace



SH2-203

## ■ Product Description

SH2-203 is another masterpiece of Smart series for high-end scientific research and industry in SinceVision's intelligent high-speed camera family, which has a perfect balance of body size and heat dissipation through its 20-layer PCB stacking design and 10Gbps Serdes on-board interconnection technology. At the same time, thanks to the brand new hardware architecture design, it has good environmental adaptability.

## ■ Features

- High Definition: 1080P@3200FPS
- Equipped with 10 Gigabit network transmission interface, compatible with Gigabit Ethernet.
- Minimum exposure time 100ns, 150ns dual-exposure time PIV.
- Multiple triggering modes, supporting single recording and multiple event triggering.
- Ultra-Compact Size with Outstanding 200G Shock Resistance.

## ■ Typical Applications



Mechanical Motion



Welding Detection



Drop Test



Flame Study

## ■ Specification

|                                       |                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Model                                 | SH2-203                                                                                                                            |
| Max. Resolution                       | 1920×1080                                                                                                                          |
| Full Frame Rate                       | 3200fps                                                                                                                            |
| Max. Frame Rate                       | 300000fps                                                                                                                          |
| Min. Exposure Time                    | 100ns                                                                                                                              |
| Cell Size                             | 10μm                                                                                                                               |
| Standard RAM                          | 16G/64G/256G/512G/1TB/2TB                                                                                                          |
| Dynamic Range                         | 60dB                                                                                                                               |
| Analog Gain                           | ×2, ×4, ×8                                                                                                                         |
| Bit Depth                             | 8bit                                                                                                                               |
| PIV Shutter                           | 150ns                                                                                                                              |
| Color                                 | Monochrome                                                                                                                         |
| ROI                                   | Support                                                                                                                            |
| Lens Mount                            | E Port, detachable,<br>adaptable to F Port,<br>C Port, EF Port                                                                     |
| Data Interface                        | 10 Gigabit Ethernet,<br>compatible with Gigabit<br>Ethernet                                                                        |
| Sensitivity                           | ISO30000(M)<br>ISO10000(C)                                                                                                         |
| Fan Control                           | Support turning on / off, adaptive rotary<br>speed according to temperature                                                        |
| Operating<br>Temperature/<br>Humidity | Standard -10~50°C, below 95%(no<br>condensation), customizable -40~65°C<br>wide temperature range version                          |
| Video Signal<br>Output                | Ethernet / 3G-SDI                                                                                                                  |
| Recording Mode                        | Start, End, Center, Random, Manual                                                                                                 |
| Trigger Mode                          | Manual, IO, Image                                                                                                                  |
| External Signal                       | Input: trigger (TTL/switch), sync signal,<br>ready signal, RS422, event signal, IRIG<br>Output: trigger, sync signal, ready signal |
| Power Supply                          | DC24V                                                                                                                              |
| Dimensions<br>(excluding lens)        | 89D×72W×72H ,<br>excluding protrusion parts and len mount                                                                          |
| Weight                                | 730g(E-port) , 680g(C-port )                                                                                                       |
| Power Consumption                     | < 30W                                                                                                                              |
| Standard<br>Accessories               | Power cord×1, AC Adaptor×1 ,<br>Network cable×1, Camera Control Software×1<br>Product Manual×1, Qualified Certificate×1            |

## ■ Performance

| Resolution | Frame<br>Rate | Recording time |       |        |         |
|------------|---------------|----------------|-------|--------|---------|
|            |               | 16GB           | 64GB  | 1TB    | 2TB     |
| 1920×1080  | 3200FPS       | 2.5s           | 10s   | 2.6min | 5.2min  |
| 1920× 720  | 4800FPS       | 2.5s           | 10s   | 2.6min | 5.2min  |
| 1920×512   | 6800FPS       | 2.5s           | 10s   | 2.6min | 5.2min  |
| 1920×256   | 13500FPS      | 2.5s           | 10s   | 2.6min | 5.2min  |
| 1920×128   | 26200FPS      | 2.6s           | 10.4s | 2.6min | 5.2min  |
| 1920×8     | 224000FPS     | 5s             | 20s   | 5.1min | 10.2min |
| 1920×4     | 300000FPS     | 7.4s           | 29.6s | 7.5min | 15.1mi  |

※ Other memory versions record time accordingly. For example, the 512GB version records half the time of the 1TB version.

※ The above recording time is based on the grayscale 8 bits.

## ■ Services

1. Technical Support
2. Product Demonstrations
3. Consultation Services
4. Maintenance and Calibration
5. Programs and Trainings
6. Spare Parts and Accessories
7. Customized Solutions
8. After Sales Service Support

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